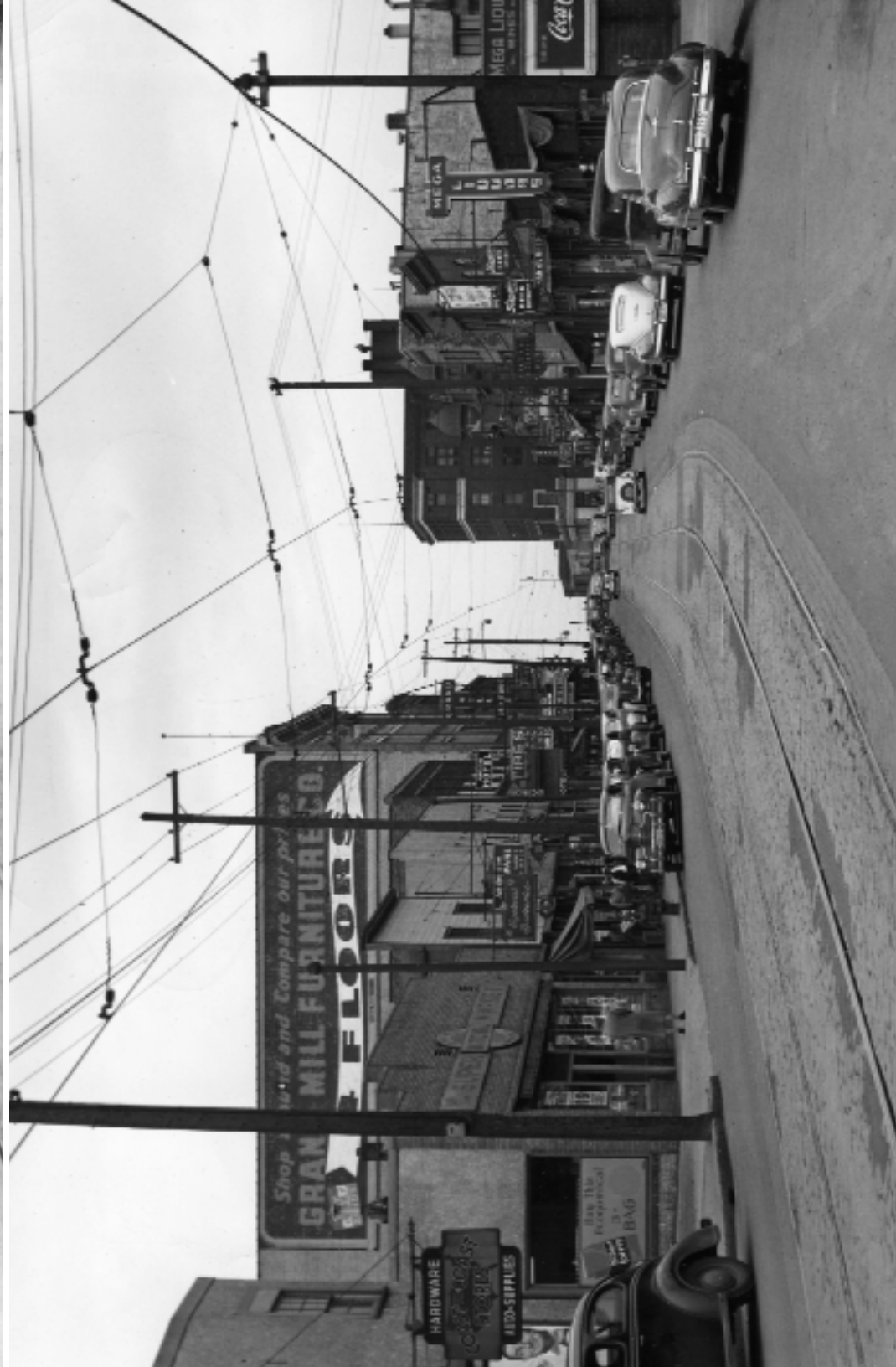


TWIN CITY LINES

WINTER 2013









## TWIN CITY LINES

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Vol. 7 No. 1

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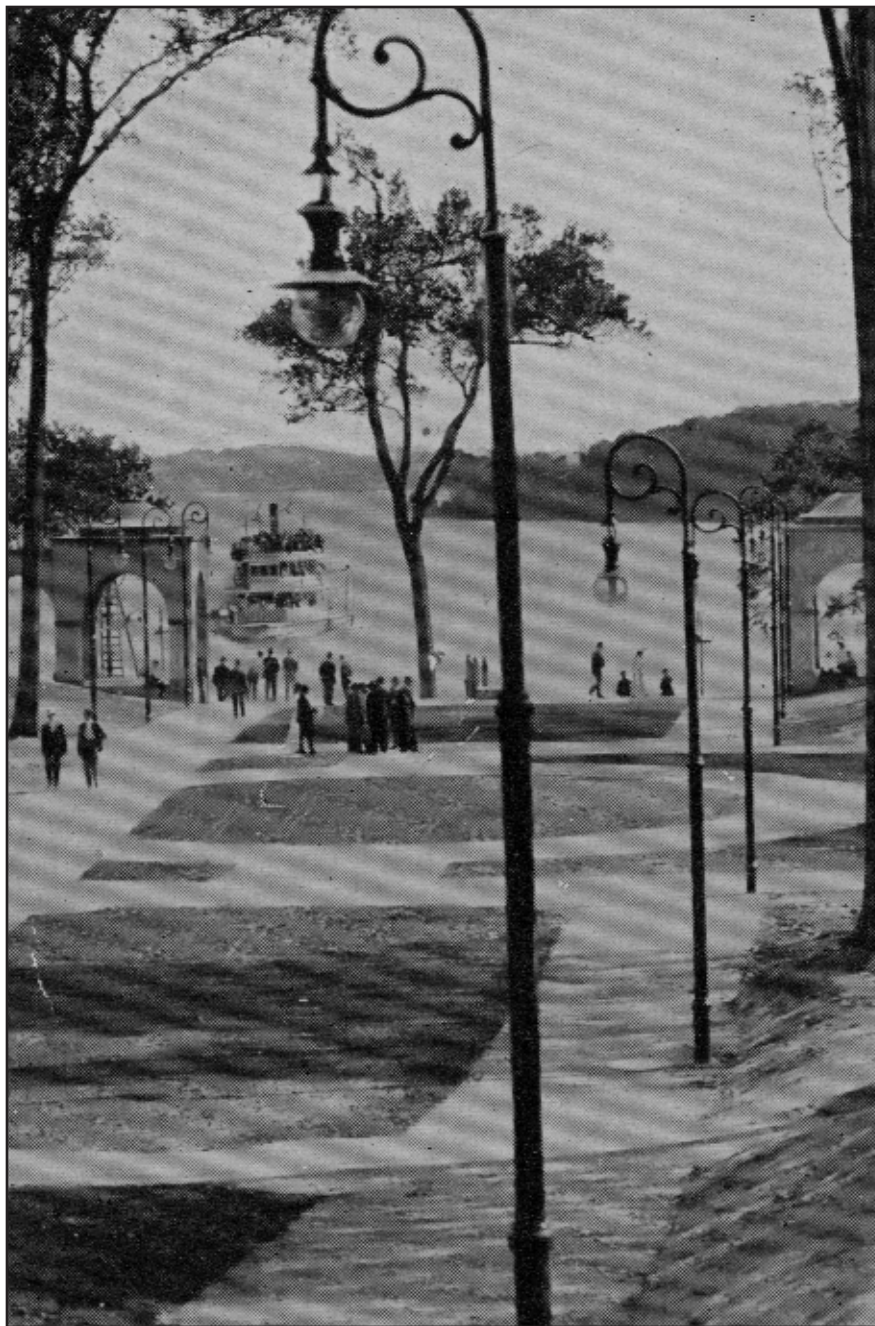
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The Minnesota Streetcar Museum operates the Como-Harriet Streetcar Line in Minneapolis and the Excelsior Streetcar Line in Excelsior. Its mission is to preserve Minnesota's electric railway heritage.

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TCRT used these streetlights at the Excelsior Dock Station, Big Island (photo) and Wildwood Park. A handful have survived to be reused a block from the dock station site.

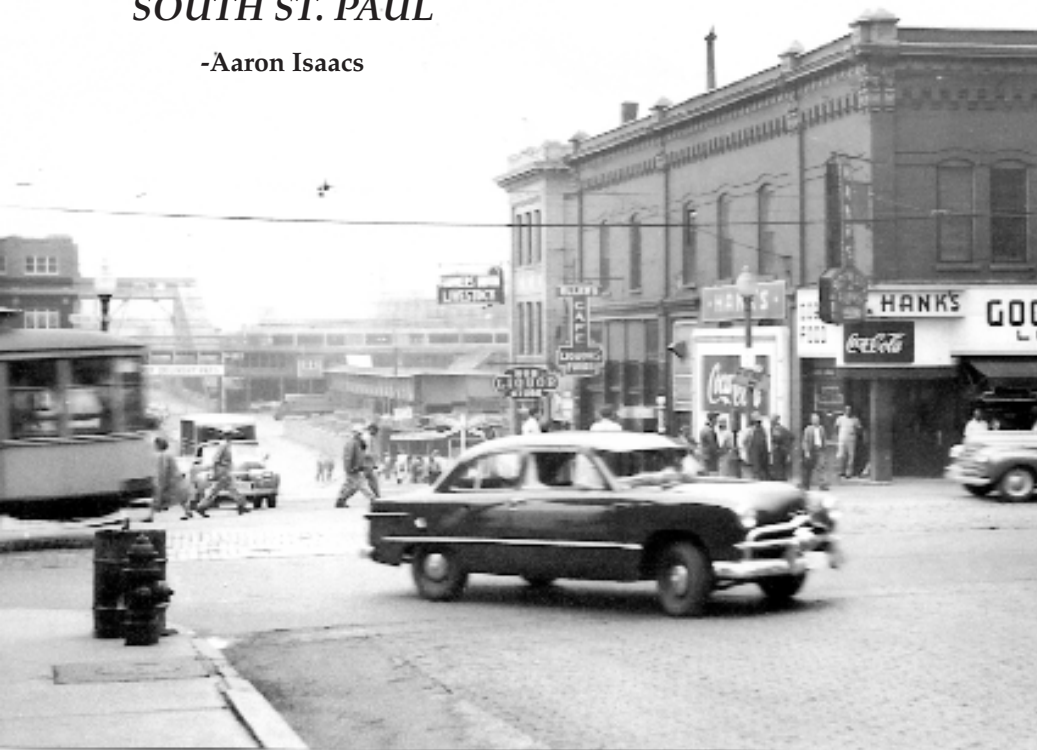
**Front cover:** This issue concentrates on South St. Paul, which had a little bit of everything--commuter trains, streetcars, interurbans, and Minnesota's only monorail. For more on this rare device, see page 17. Minnesota Historical Society collection.  
**Inside front cover:** Over 40 years separate these identical views of downtown South St. Paul, looking north on Concord Street just south of Grand Avenue. Top photo Dakota County Historical Society collection.



June 10, 1949 - About 4:00 PM.

## SOUTH ST. PAUL

-Aaron Isaacs



If one photo sums up South St. Paul, this is it. You're looking across the Grand and Concord intersection at the stockyards' main entrance. Dakota County Historical Society collection.

The downtowns dominated development in the Twin Cities until the automobile unleashed the suburbs in the 1950s. Nonetheless, there were pockets of suburban employment, such as the Minneapolis Threshing Machine plant in Hopkins, the Northern Car Company factory in Robbinsdale, the International Harvester Flax Twine plant on the far east side of St. Paul and Fort Snelling. The largest by far was the stockyard and meat packing complex in South St. Paul, and this spawned an extensive transit service.

Local railroad builder Alpheus B. Stickney opened the Minnesota & Northwestern from St. Paul to South St. Paul in 1885. Soon renamed the Chicago, St. Paul & Kansas City, it became the Chicago Great Western,

extending to Chicago, Omaha and Kansas City. Stickney teamed with James J. Hill to open the 260-acre St. Paul Union Stockyards in 1887. The landmark Stockyards Exchange building opened at the same time.

South St. Paul had nowhere near enough workers to staff the stockyards. A commuter connection to St. Paul was needed and the railroad provided that from the beginning. A pair of bi-directional 2-4-4T tank engines were purchased to power hourly commuter trains. To avoid paying high rent at St. Paul Union Depot, trains loaded downtown at the foot of Jackson Street. The railroad, which remains active today, crosses the Mississippi River and closely parallels Concord Street.

Trains served the stockyards from 6 AM to midnight and most ran seven days a week, covering the round-the-clock work shifts. They made 12 intermediate station stops, roughly every half mile, before terminating at Inver Grove. The railroad itself contributed to ridership by building its car shops at South Park, a mile north of the stockyards.

Despite the growing market, streetcars didn't reach the stockyards until 1905. Horsecars crossed the Robert Street bridge in 1887 and turned south on Concord Street, terminating about where Highway 52 crosses Concord today. They were extended about half a mile to Arthur Street in 1890. Electrification came in 1891, along with an extension to the city limits at Annapolis Street.

Because Concord Street follows the base of a steep bluff south of Annapolis Street, few people live within walking distance of it. This probably delayed TCRT's decision to extend the line, as it was largely dependent on reverse commute traffic. The streetcars couldn't come too soon for the Chicago Great Western. The stockyards had gone bankrupt following the Panic of 1893. The commuter trains were a necessity, but they almost certainly ran at a loss.

Swift and Company constructed its

### MOTOR TIME CARD

No. 22.

In Effect 12:00 Noon, Sept. 2, 1888.

## CHICAGO, ST. PAUL & KANSAS CITY RAILWAY. SUBURBAN TRAINS.

#### TICKET RATES,

Single Ticket, - - 7c.

Ten Tickets (strip), - - 50c.

CASH FARES NOT ACCEPTED  
ON TRAINS.

MOTOR LINE TICKETS  
NOT GOOD ON THROUGH PAS-  
SENGER TRAINS.

ALL MOTOR TRAINS  
ARRIVE AT AND DEPART FROM  
FOOT OF JACKSON ST.

J. M. EGAN, J. A. HANLEY,  
GENERAL MANAGER. TRAFFIC MANAGER.

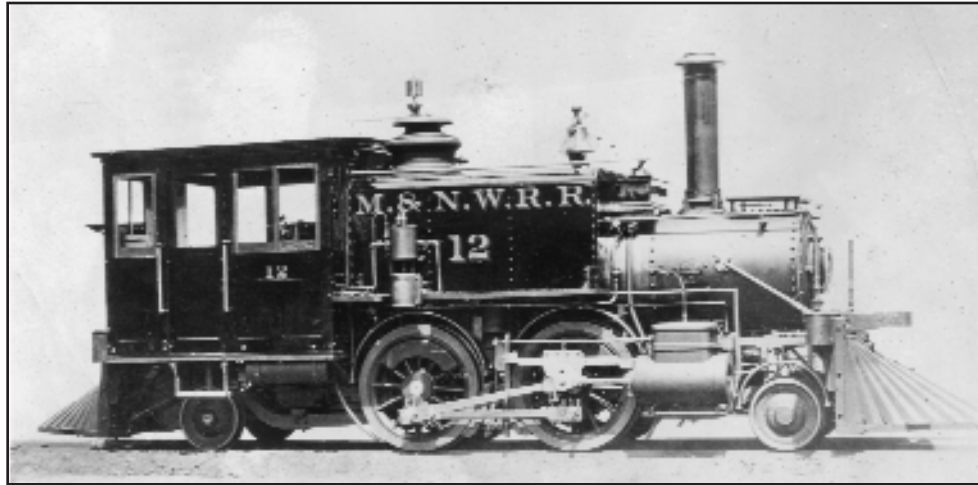
PIONEER PRESS, ST. PAUL, MINN.

C. ST. P. & K. C. SUBURBAN TRAINS.																											
From ST. PAUL														To ST. PAUL.													
LEAVE	AM	AM	AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	LEAVE	AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	PM
Jackson St.	6:30	7:00	8:00	9:00	10:00	10:00	10:04	11:04	12:05	1:04	2:01	3:00	4:00	5:00	5:30	6:00	6:30	7:00	8:00	9:00	10:00	11:00	11:55	12:00	12:30	1:00	1:30
West St. Paul	6:33	7:04	8:04	9:04	10:04	10:04	10:08	11:08	12:09	1:08	2:05	3:04	4:04	5:04	5:34	6:04	6:34	7:04	8:04	9:04	10:04	11:04	11:59	12:04	12:34	1:04	1:34
Custer St.	6:35	7:05	8:05	9:05	10:05	10:05	10:10	11:10	12:11	1:10	2:07	3:06	4:06	5:06	5:36	6:06	6:36	7:06	8:06	9:06	10:06	11:06	11:59	12:06	12:36	1:06	1:36
State St.	6:47	7:37	8:37	9:37	10:37	10:37	10:41	11:41	12:13	1:12	2:09	3:08	4:08	5:08	5:38	6:08	6:38	7:08	8:08	9:08	10:08	11:08	11:59	12:08	12:38	1:08	1:38
Cambridge St.	6:49	7:39	8:39	9:39	10:39	10:39	10:43	11:43	12:15	1:14	2:11	3:10	4:10	5:10	5:40	6:10	6:40	7:10	8:10	9:10	10:10	11:10	11:59	12:10	12:40	1:10	1:40
Concord St.	6:51	7:41	8:41	9:41	10:41	10:41	10:45	11:45	12:17	1:16	2:13	3:12	4:12	5:12	5:42	6:12	6:42	7:12	8:12	9:12	10:12	11:12	11:59	12:12	12:42	1:12	1:42
Annapolis St.	6:53	7:43	8:43	9:43	10:43	10:43	10:47	11:47	12:19	1:18	2:15	3:14	4:14	5:14	5:44	6:14	6:44	7:14	8:14	9:14	10:14	11:14	11:59	12:14	12:44	1:14	1:44
South Park	6:56	7:46	8:46	9:46	10:46	10:46	10:50	11:50	12:22	1:20	2:17	3:16	4:16	5:16	5:46	6:16	6:46	7:16	8:16	9:16	10:16	11:16	11:59	12:16	12:46	1:16	1:46
Wentworth.	6:58	7:48	8:48	9:48	10:48	10:48	10:52	11:52	12:24	1:22	2:19	3:18	4:18	5:18	5:48	6:18	6:48	7:18	8:18	9:18	10:18	11:18	11:59	12:18	12:48	1:18	1:48
South St. Paul.	6:00	6:50	7:50	8:50	9:50	10:50	11:00	12:25	1:23	2:20	3:19	4:19	5:19	5:49	6:19	6:49	7:19	8:19	9:19	10:19	11:19	11:59	12:19	12:49	1:19	1:49	
Riverside.	6:02	6:52	7:52	8:52	9:52	10:52	11:02	12:27	1:25	2:22	3:21	4:21	5:21	5:51	6:21	6:51	7:21	8:21	9:21	10:21	11:21	11:59	12:21	12:51	1:21	1:51	
Spring Park	6:03	6:53	7:53	8:53	9:53	10:53	11:03	12:28	1:26	2:23	3:22	4:22	5:22	5:52	6:22	6:52	7:22	8:22	9:22	10:22	11:22	11:59	12:22	12:52	1:22	1:52	
Lincoln Park	6:04	6:54	7:54	8:54	9:54	10:54	11:04	12:29	1:27	2:24	3:23	4:23	5:23	5:53	6:23	6:53	7:23	8:23	9:23	10:23	11:23	11:59	12:23	12:53	1:23	1:53	
Inver Grove.	6:06	6:56	7:56	8:56	9:56	10:56	11:06	12:31	1:28	2:25	3:24	4:24	5:24	5:54	6:24	6:54	7:24	8:24	9:24	10:24	11:24	11:59	12:24	12:54	1:24	1:54	
To ST. PAUL.														From ST. PAUL.													
LEAVE	AM	AM	AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	LEAVE	AM	AM	AM	AM	AM	AM	AM	PM	PM	PM	PM	PM	PM
Inver Grove	6:10	7:30	7:35	8:25	9:30	10:30	11:30	11:30	12:30	1:30	2:30	3:30	4:30	5:30	6:05	6:35	7:35	8:30	9:30	10:30	11:30	11:35	12:35	1:35	2:35	3:35	
Lincoln Park	6:12	7:32	7:37	8:27	9:32	10:32	11:32	11:32	12:32	1:32	2:32	3:32	4:32	5:32	6:07	6:37	7:37	8:32	9:32	10:32	11:32	11:37	12:37	1:37	2:37	3:37	
Spring Park	6:13	7:33	7:38	8:28	9:33	10:33	11:33	11:33	12:33	1:33	2:33	3:33	4:33	5:33	6:08	6:38	7:38	8:33	9:33	10:33	11:33	11:38	12:38	1:38	2:38	3:38	
Riverside	6:14	7:34	7:39	8:29	9:34	10:34	11:34	11:34	12:34	1:34	2:34	3:34	4:34	5:34	6:09	6:39	7:39	8:34	9:34	10:34	11:34	11:39	12:39	1:39	2:39	3:39	
South St. Paul.	6:16	7:36	7:40	8:29	9:36	10:36	11:36	11:36	12:36	1:36	2:36	3:36	4:36	5:36	6:11	6:41	7:41	8:36	9:36	10:36	11:36	11:41	12:41	1:41	2:41	3:41	
Wentworth.	6:18	7:38	7:42	8:30	9:38	10:38	11:38	11:38	12:38	1:38	2:38	3:38	4:38	5:38	6:13	6:43	7:43	8:38	9:38	10:38	11:38	11:43	12:43	1:43	2:43	3:43	
South St. Paul.	6:20	7:40	7:45	8:33	9:40	10:40	11:40	11:40	12:40	1:40	2:40	3:40	4:40	5:40	6:15	6:45	7:45	8:40	9:40	10:40	11:40	11:45	12:45	1:45	2:45	3:45	
Annapolis St.	6:22	7:42	7:46	8:34	9:42	10:42	11:42	11:42	12:42	1:42	2:42	3:42	4:42	5:42	6:17	6:47	7:47	8:42	9:42	10:42	11:42	11:47	12:47	1:47	2:47	3:47	
Concord St.	6:25	7:44	7:48	8:36	9:45	10:45	11:45	11:45	12:45	1:45	2:45	3:45	4:45	5:45	6:19	6:49	7:49	8:44	9:44	10:44	11:44	11:49	12:49	1:49	2:49	3:49	
Cambridge St.	6:27	7:46	7:51	8:39	9:47	10:47	11:47	11:47	12:47	1:47	2:47	3:47	4:47	5:47	6:21	6:51	7:51	8:46	9:46	10:46	11:46	11:51	12:51	1:51	2:51	3:51	
State St.	6:15	6:29	6:48	7:58	9:00	9:49	10:49	11:48	11:49	12:52	1:53	2:49	3:48	4:50	6:05	6:21	6:58	7:57	8:50	9:49	10:49	11:49	11:59	12:59	1:59	2:59	
Jackson St.	6:17	6:31	6:50	8:00	9:00	9:59	10:59	11:58	11:59	12:54	1:55	2:51	3:51	4:52	6:07	6:23	7:00	7:59	8:52	9:59	10:59	11:59	12:59	1:59	2:59	3:59	
West St. Paul	6:19	6:33	6:52	8:02	9:02	10:01	11:01	12:00	12:01	12:56	1:57	2:53	3:53	4:54	6:09	6:25	7:02	8:01	8:54	9:59	10:59	11:59	12:59	1:59	2:59	3:59	
Custer St.	6:22	6:40	6:55	8:06	9:06	10:05	11:05	12:04	12:05	12:58	1:59	2:56	3:56	4:57	6:11	6:27	7:04	8:03	8:56	9:59	10:59	11:59	12:59	1:59	2:59	3:59	



**Chicago Great Western predecessor Minnesota & Northwestern bought two of these bi-directional tank engines to power the hourly Motor between St. Paul, South St. Paul and Inver Grove. They ran from 1886 until streetcars replaced them in 1905. Dakota County Historical Society collection.**

**Below right: This looks like the wye at Concord and Witham Street, well within St. Paul, around 1905.**



Paul became incorporated the following year, and as settlers became numerous in this part of the county, the motor became a very necessary means of transportation. Inver Grove was soon included at almost every trip and two trains handled the traffic between that place and St. Paul for almost three years, one train leaving while the other made the return trip.

Since that time one engine did duty and for years this motor has been closely allied with the upbuilding of the city.

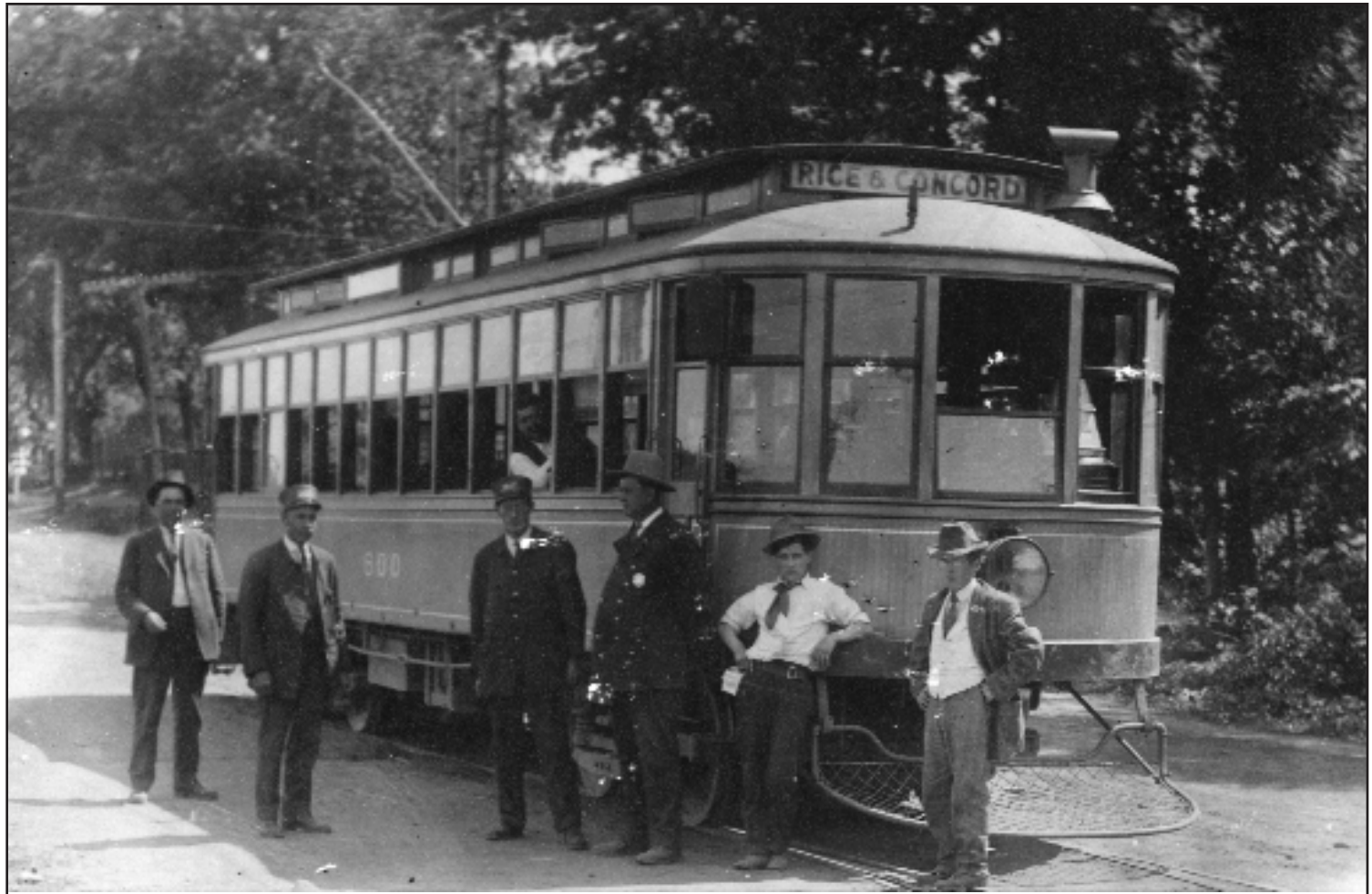
This action of taking off the motor entirely is the result of the advent of streetcars to South St. Paul. The officials of the Chicago Great Western have no regret in taking off the service, for though the

packing plant in 1897. Armour would follow in 1915. The stockyards were growing, as was South St. Paul, which had only 2000 residents in 1890. According to contemporary newspaper accounts, TCRT began negotiating franchise terms with the City of South St. Paul in 1899. After reaching the stockyards via Concord, the city wanted a loop that climbed the bluff to serve developing neighborhoods. TCRT resisted and the final franchise called for construction of the hill loop line when the population of that area reached 4000. The streetcar loop never happened, but buses eventually served the area, as will be related later. The line was double tracked as far as Annapolis Street, then single track the rest of the way, except for a half-mile of double track from Grand Avenue to 6th Street in South St. Paul. There was a short turn wye at Marie Avenue.

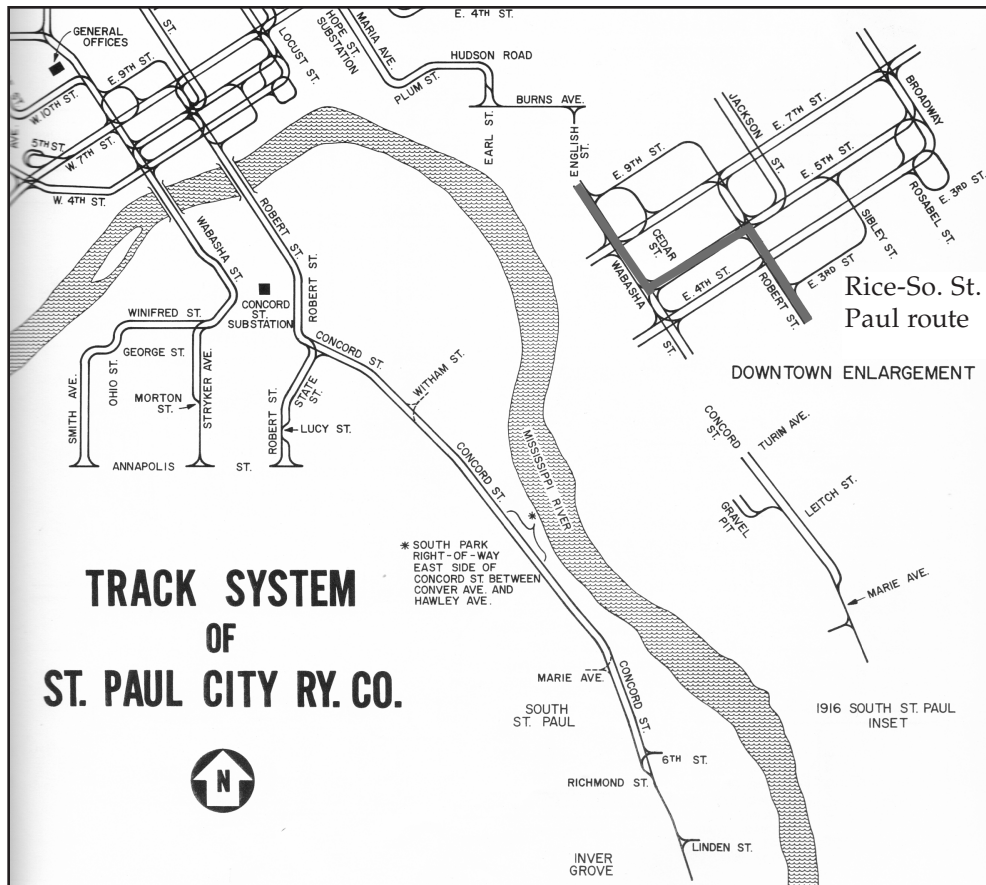
Streetcar service to South St. Paul began on July 22, 1905, with the extension to the Inver Grove city limits on August 1. The initial schedule was every 20 minutes from 5 AM to 8 PM, then hourly until midnight.

The last day for the Great Western motor trains was August 12, 1905. According to the South St. Paul Republic:

Almost 20 years ago, the same summer that the stockyards were built, ...the road began running an engine and several coaches to carry the working men from St. Paul down here. The City of South St.







Starting with this page, we're taking a trip from downtown to South St. Paul. Left: A southbound car boards on Wabasha Street at 7th Street. Minnesota Historical Society collection. Top: South St. Paul, Como-Harriet and Interurban cars all turned from Wabasha onto 5th Street, like the car at right. Above: After traveling three blocks on 5th Street, South St. Paul cars turned right onto Robert Street. This photo was taken at 4th Street.





Two versions of the Robert Street bridge carried streetcars across the Mississippi. Compare the two top photos, taken at about the same location. The old bridge built in 1885 (left two photos) was replaced in 1926 (right two photos). Above right: St. Paul Southern interurbans used the South St. Paul line to reach their own tracks in Inver Grove. Minnesota Historical Society collection.







**The river flats across from downtown were prone to flooding, as happened in 1952. St. Paul Pioneer Press photo, Minnesota Historical Society collection.**

trains were well patronized, it is said that the motor did not yield any profit to the company.

The taking off of the motor will require

arrangements for the transporting of mail between here and St. Paul. The motor has been carrying mail on almost each trip and in order to provide the same service it will



be necessary for the post officials to make arrangements with the street car company.

Track changes happened over the years. In 1908 the wye at Arthur Street, the original end of horsecar service, was moved north one block to Witham Street.

All across the country, electric interurbans were being built between cities. A common strategy was to connect large cities with nearby small towns. Interurbans used the existing local streetcar tracks to reach downtown. This was the same model employed by the St. Paul Southern to connect St. Paul with Hastings. In 1914 it began service over 17.5 miles from Hastings to Inver Grove. For the first year, hourly interurbans transferred passengers to TCRT streetcars at Linden Street. Through service to downtown St. Paul over 7.3 miles of



**We would have no photos of the Robert and Concord intersection were it not for the Pioneer Press recording minor disasters. Until 1938 these tracks were shared by the South Robert Street line, which diverged at Concord and State Street. All Minnesota Historical Society collection.**





**Right: About a block beyond the wrecked trailer at left was the Concord Street Substation, that boosted power for the South St. Paul, South Robert, Stryker and Cherokee Heights lines. It is one of three that survive today.**



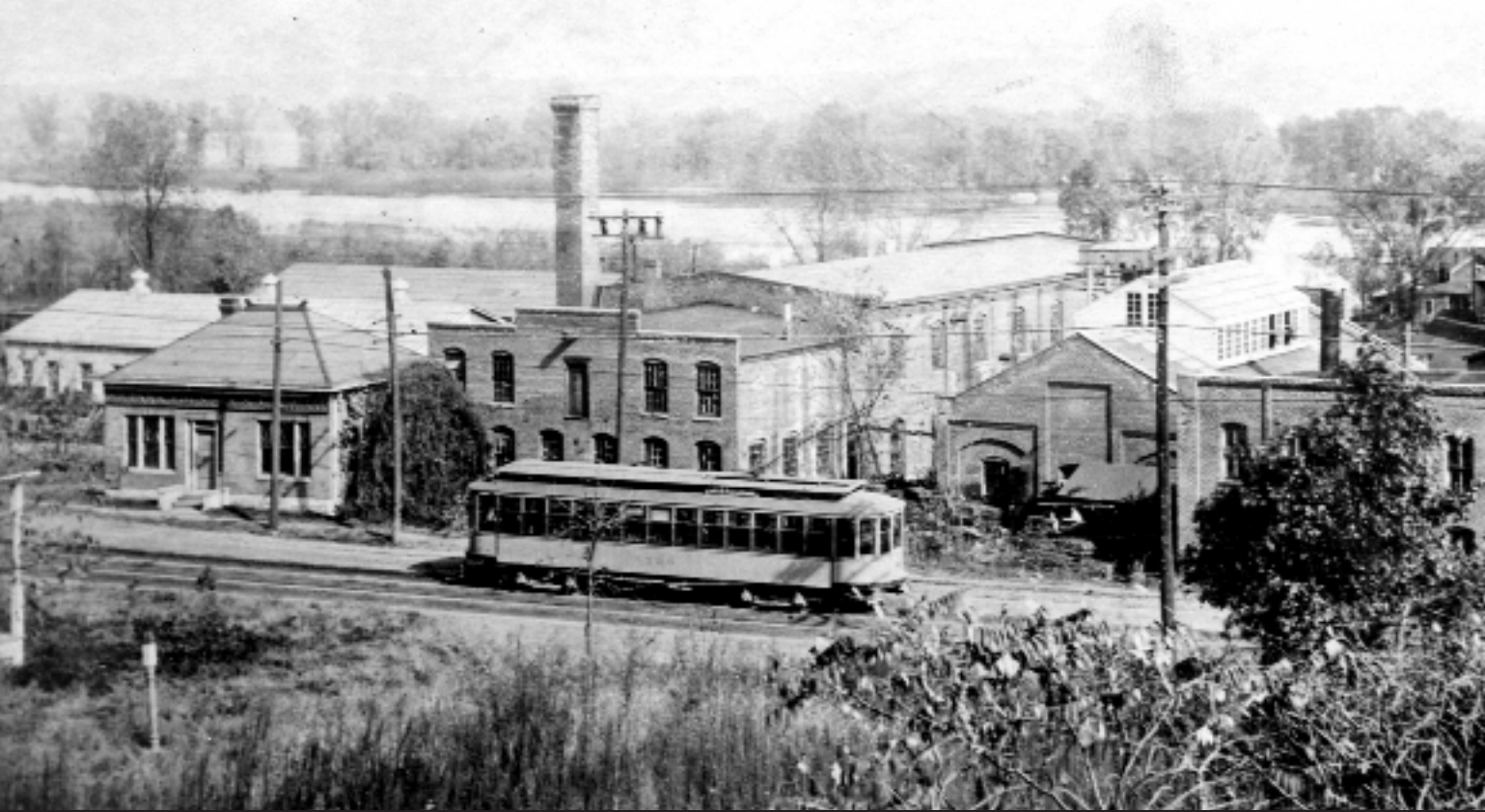
TCRT track began in 1915. The interurbans were not allowed to carry local passengers between St. Paul and South St. Paul.

Adding hourly interurban service, plus the opening of the Armour plant in 1915 increased traffic to the point where more double track was needed. It was extended south from Annapolis to about Grand Avenue. In 1919 it was extended again to 6th Street and the

**From Curtice to Annapolis Streets, the original alignment of Concord Street climbed over the shoulder of a hill and was later bypassed by the flatter road at right. The camera is looking north across the city limits from South St. Paul into St. Paul, hence the "Thanks Call Again" sign.**







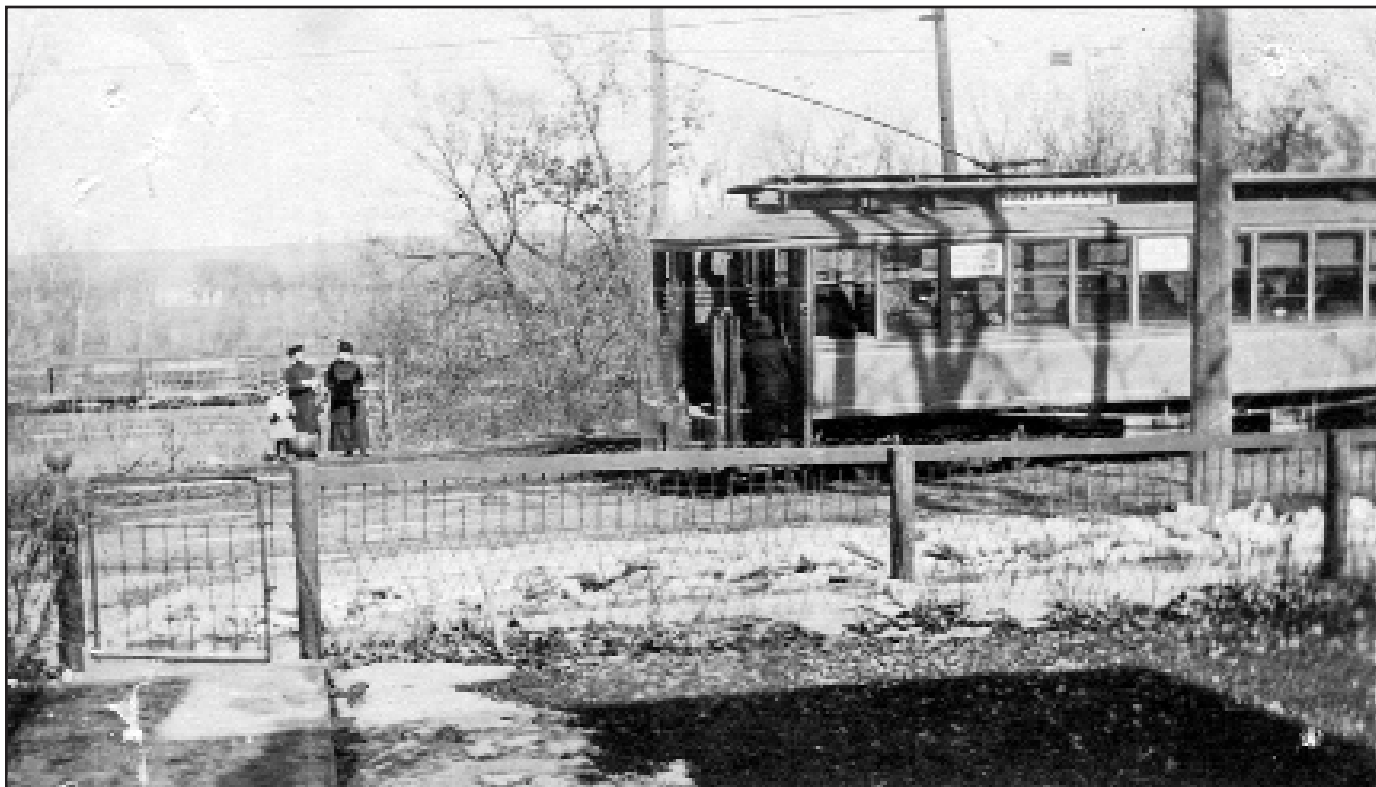
shortline wye was moved there from Marie Avenue.

1920 saw the double track extended to its furthest point, Richmond Street, just south of today's I-494. TCRT also opened a small carhouse on the east side of Concord between Malden and Richmond Streets. Its storage yard could hold 28 cars and the two-track carhouse could perform light repairs on two cars at once. The large shift changes at the stockyards required numerous extra cars on the line. The satellite carhouse permitted TCRT to avoid deadheading cars back to St. Paul's Duluth Avenue Station. They could stay in South St. Paul until needed for the return trip. This arrangement lasted until July 13, 1932. The building survives today as a truck repair shop, and the tracks are still visible in the floor.

As the century progressed, the size of the stockyards increased, as did the population of South St. Paul. The stockyards' peak year was 1943.

The 1920s saw the arrival of bus competition and bus feeder lines. Sometime in the early 20s the American Auto Transit Company, also known as the Brown Bus, began running on Concord Street, directly competing with the streetcars. Eventually TCRT purchased the line to eliminate the competition. Bus service to the hill neighborhoods of South St. Paul via Robert Street in West St. Paul began in 1923. This is the same basic service that survives today as Route 68.

The geography of South St. Paul has always made transit service challenging. Concord Street is the fast route to downtown, but has little online



**Top:** A northbound car passes the Chicago Great Western's South Park Shops, located between Conner Avenue and Hawley Avenue. This was also the area where TCRT's tracks shifted to the east side of the road for half a mile.  
**Bottom:** Due to the lack of cross streets and other landmarks, some locations along Concord can't be identified. This is one. Dakota County Historical Society collection.





Above: This is a rare view, probably from the line's opening in 1905. That's rail bond test car #796, checking to see if all's well. Below: Unknown location, but the retaining wall suggests about a mile north of Grand Avenue. Both Dakota County Historical Society collection.



Above: Looking south. The tall building in the distance is at Grand Avenue. Dakota County Historical Society collection. Below: Although the location is not identified, we're pretty sure it's one of the two South St. Paul gravel pits, because of the hill behind the work car. Minnesota Historical Society collection.







traffic. One line on the hilltop can't cover all the neighborhoods, yet there really isn't enough population to support two lines. Various solutions have been tried over the years. In 1925 a shuttle bus to the streetcar on Concord Street began serving the South Park neighborhood, which was north

**Below left: The neighborhood north of downtown South St. Paul was called South Park. Note the South Park Foundry at right. Dakota County Historical Society collection. Below center: A stockyards strike in 1950 brought out the National Guard, seen here on Grand Avenue passing the Livestock Exchange Building. Minnesota Historical Society collection.**







and east of the West St. Paul “hill” route. When the Great Depression hit, the West St. Paul bus began losing money. According to one newspaper report, the bus company cut back to a pair of shuttle loops in South St. Paul that fed the streetcars on Concord (see transfer on page 16). Eventually the service via West St. Paul resumed and the shuttles ceased.

The St. Paul Southern was never financially healthy, so it was no surprise when auto and bus competition drove it out of business in 1928. The City of Inver Grove purchased the roughly one mile of track from the South St. Paul city limits at Linden Street to Faulkner Avenue. TCRT leased the line and began service. It didn’t last. The Depression hit and the track was abandoned in 1933. Use of the South St. Paul carhouse ended in 1932.

Despite these setbacks, the size of the stockyards increased, as did the population of South St. Paul. The stockyards’ peak year was 1943. Operating stats from 1941 and 1943 show that ridership on the Rice-South St. Paul line was competitive with the rest of the St. Paul local lines.

The South St. Paul line served one other purpose. Online was one of three sand and gravel pits that supplied the streetcar system. First it was located north of Grand Avenue, opposite

**Without the stockyards, it’s questionable whether there would have been a streetcar line. This panorama by Hibbard certainly drives that point home. Below is a blowup of the panorama’s extreme right corner. Two St. Paul Southern interurbans and a northbound streetcar are passing a second streetcar laying over on the Marie Avenue wye. The wye was later moved south to 6th Street. Library of Congress collection.**

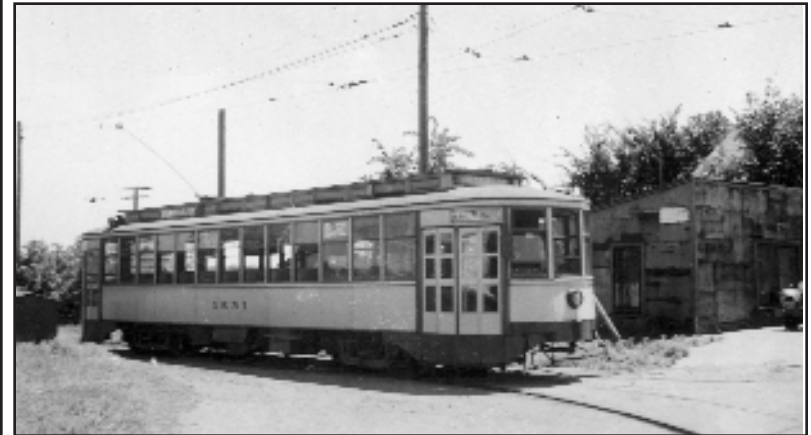




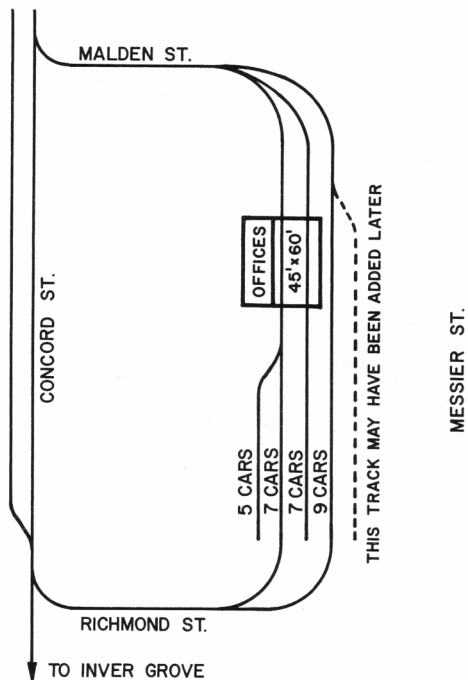


Left: A northbound car just north of Marie Avenue. Frank Butts photo.

Below: On the 6th and Concord wye.



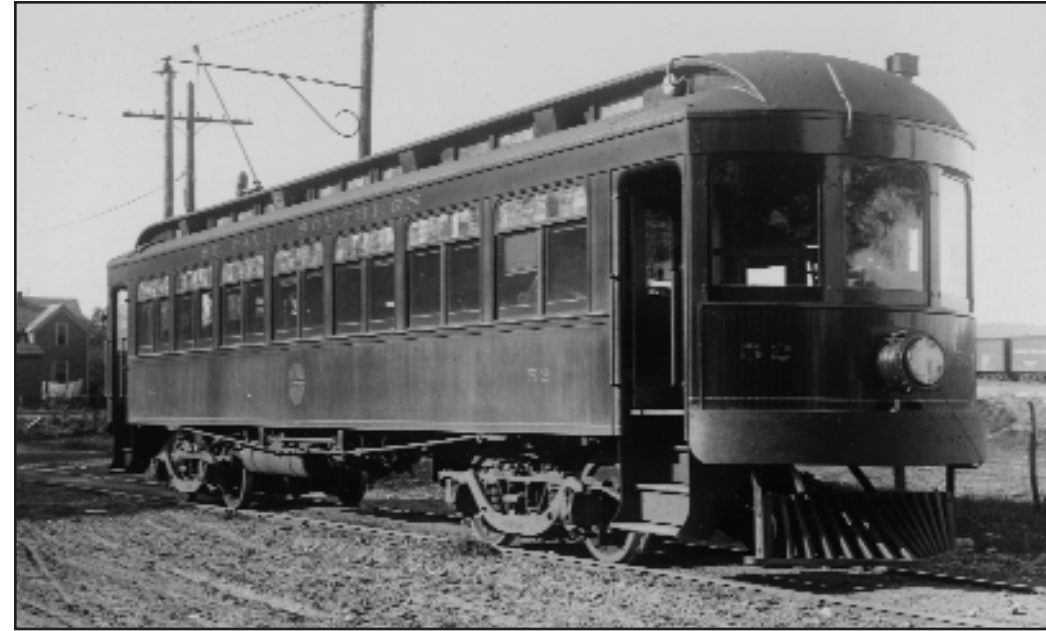
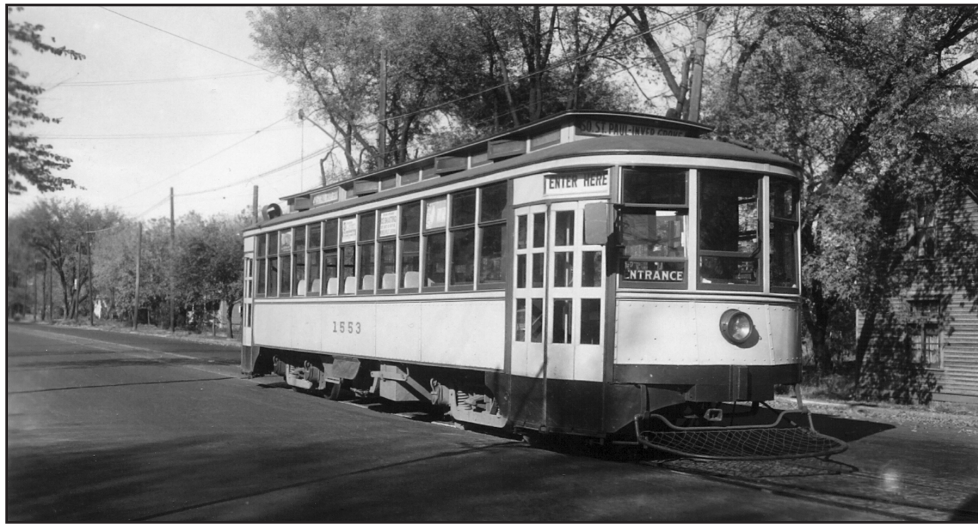
MPLS. & ST. PAUL SUBURBAN R.R. CO.  
LOCAL SUBURBAN DIV. - SOUTH ST. PAUL LINE  
SOUTH ST. PAUL YARDS  
1919



From 1919 until 1932, TCRT kept South St. Paul extra cars at this yard and small carhouse just south of today's I-494. It saved deadheading the cars back to St. Paul. The building (at right) still stands.







The end of the line for streetcar service was the Linden Street wye, at the South St. Paul/Inver Grove city line. Above left: A southbound car crosses the wye switch. Below left: Sitting in the wye. John Stern photo, ERA collection.



## SCHEDULE

Effective Jan. 5th, 1918

# St. Paul Southern Electric Ry. Co.

Schedule of trains subject to change without notice

Leave	Arrive	Arrive	Arrive	Leave	Arrive	Arrive	Arrive
Hastings	Inver Grove	So. St. Paul	7th & Wab.	St. Paul	7th & Wab.	So. St. Paul	Inver Grove
6:45Am	6:33Am	6:42Am	7:10Am	7:10Am	7:42Am	7:50Am	8:37Am
8:45Am	8:33Am	8:42Am	9:10Am	9:10Am	9:42Am	9:50Am	10:37Am
10:45Am	10:33Am	10:42Am	11:10Am	11:10Am	11:42Am	11:50Am	12:37Pm
12:45Pm	12:33Pm	12:42Pm	1:10Pm	1:10Pm	1:42Pm	1:50Pm	2:37Pm
2:45Pm	2:33Pm	2:42Pm	3:10Pm	3:10Pm	3:42Pm	3:50Pm	4:37Pm
4:45Pm	4:33Pm	4:42Pm	5:10Pm	5:10Pm	5:42Pm	5:50Pm	6:37Pm
6:45Pm	6:33Pm	6:42Pm	7:10Pm	7:10Pm	7:42Pm	7:50Pm	8:37Pm
8:45Pm	8:33Pm	8:42Pm	9:10Pm	9:10Pm	9:42Pm	9:50Pm	10:37Pm
10:45Pm	10:33Pm	10:42Pm	11:10Pm	11:10Pm	11:42Pm	11:50Pm	12:37Am

† Leaves Inver Grove at 6:33 a. m. for St. Paul.

\* Connects with Inver Grove car at Inver Grove Wye.

To make complaints, offer suggestions, or for further information telephone or write

**R. M. LABELLE, Supt.**

Hastings, Minn

Above: The St. Paul Southern's rails began in Inver Grove, where the company maintained a small carhouse next to the Rock Island freight yard.

Left: The 1916 schedule featured hourly service between Hastings and St. Paul.

Winthrop Street. Later a different pit opened alongside the appropriately named Pitt Street, just south of Grand Avenue.

Over the years the South St. Paul line sometimes terminated in downtown St. Paul, and at other times was through-routed with Rice Street. When it terminated downtown, it looped via Robert Street, 8th Street,

Wabasha Street and 5th Street. The through-routing to Rice Street was via Robert, 5th and Wabasha.

The wholesale conversion to bus swept through the St. Paul side of the system in 1952. The South St. Paul line was abandoned on May 17, the same day as the Maria, Rice Street, West 7th Street, Randolph and Hazel Park lines.



**St. Paul Southern Electric Ry. Co.**  
 No. 9 1918

PASS W. J. SMITH

Account MASTER MECHANIC T. C. LINES

Between HASTINGS & ST. PAUL

Until, DECEMBER 31st. 1918 { Unless otherwise ordered, and subject to conditions on back

Valid when countersigned by R. M. La BELLE

*R. M. La Belle* Receiver

Countersigned by *W. J. Smith*

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	
1	2	3	4	5	6	7	8	9	10	11	12	
13	14	15	16	17	18	19	20	21	22	23	24	
25	26	27	28	29	30	31						

**GOOD AT TRANSFER POINT, FOR 1 CONTINUOUS FARE, ON DATE AND TIME INDICATED BY PUNCH. NO STOP-OVER ALLOWED. AMERICAN AUTO TRANSIT CO.**

**Nº 8676 (BROWN BUSES)**

1	2	3	4	5	6	7	8	9	10	11	12
15	15	15	15	15	15	15	15	15	15	15	15
30	30	30	30	30	30	30	30	30	30	30	30
45	45	45	45	45	45	45	45	45	45	45	45

**LINE TRANSFERRING**

FROM TO

SO. ST. PAUL SO. PARK

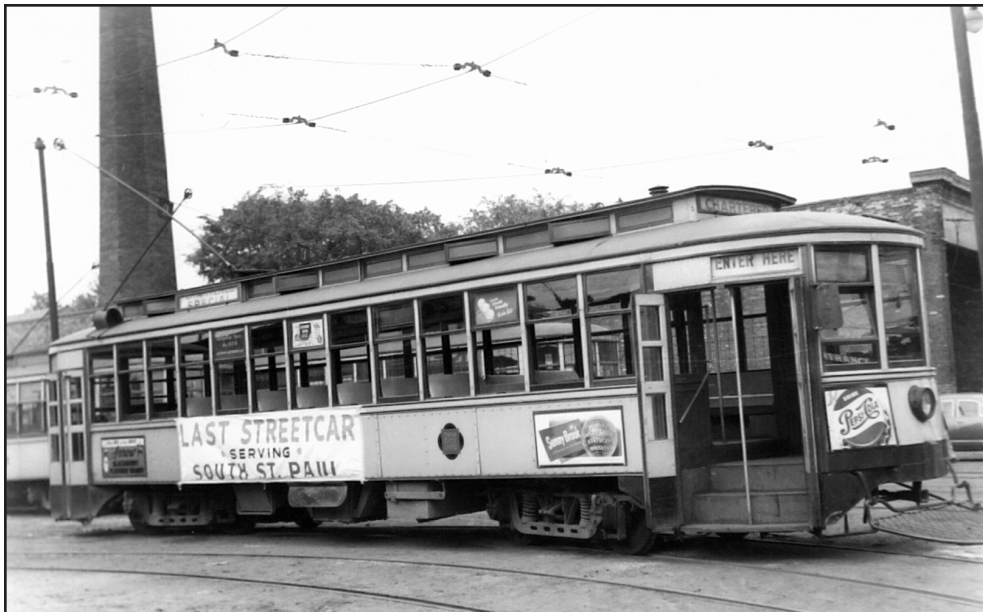
SO. PARK SO. ST. PAUL

**N S E W A.M. P.M.**

CANCEL HERE



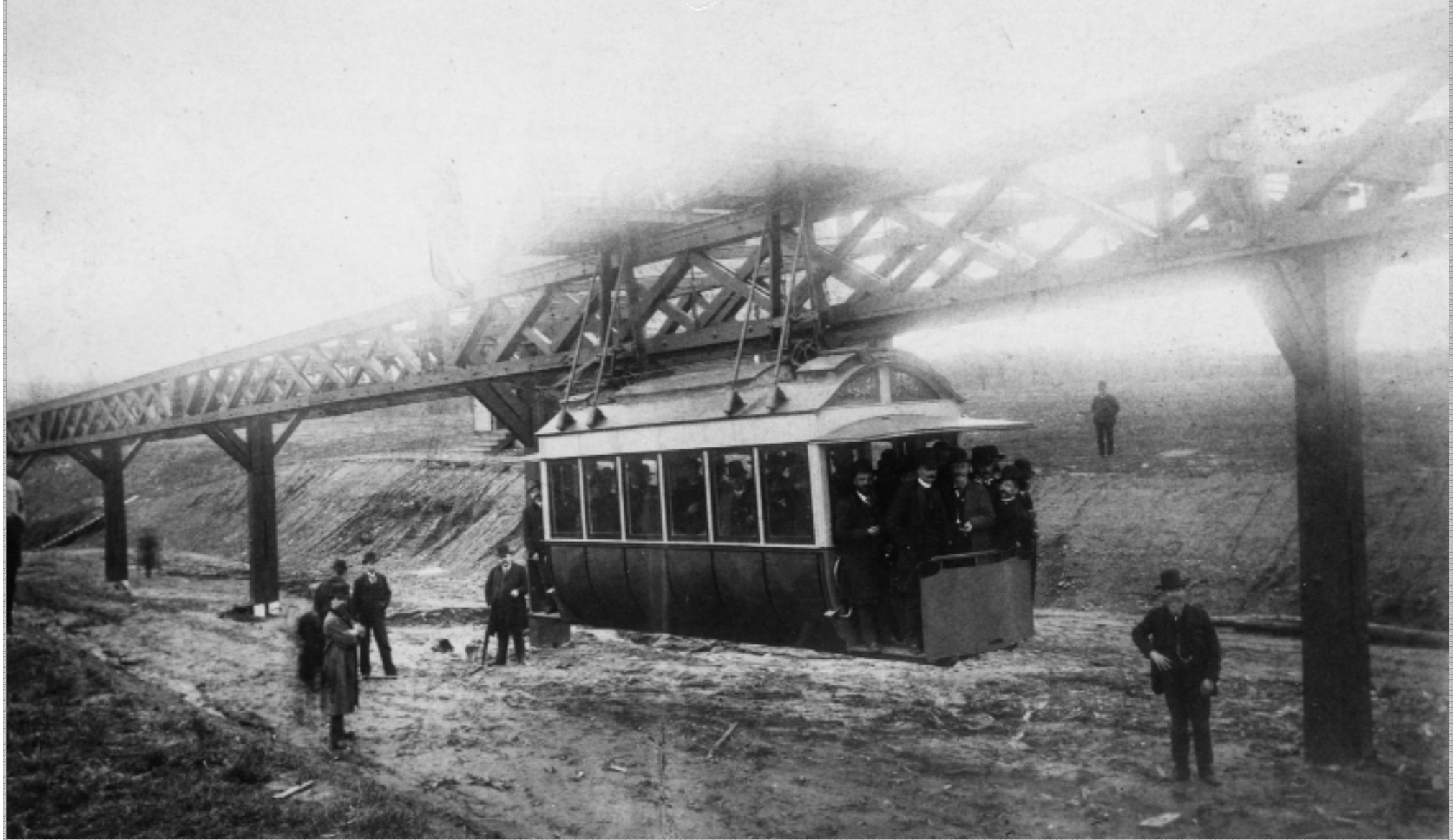
Top left: TCRT handled heavy repairs for St. Paul Southern, who issued a pass to Master Mechanic W. J. Smith.  
 Middle left: American Auto Transit, better known as the Brown Bus, ran shuttles from the hilltop neighborhoods that fed the streetcars on Concord. Note the punch boxes labelled So. St. Paul and So. Park, which were the transfer points. These appear to have been free transfers, mandated by the city franchise as a substitute for the streetcar hill loop that was never built.  
 Above and below: On May 17, 1952, the last streetcar left Duluth Station and met a group of celebrating Chamber of Commerce members. They also greeted the first bus. Anthony Rericha photos.





*The South St. Paul Monorail*

-Aaron Isaacs





The first electric railway in Minnesota was the abortive attempt to electrify the Minneapolis, Lyndale & Minnetonka (the Motor Line) on Marquette Avenue in 1885 and again in 1886. The second electric railroad, also short lived, was the South St. Paul monorail in 1888.

### **The trouble with monorails**

Monorails have always been one of those futuristic modes that sound like a great idea but never get off the ground, so to speak. Various versions have been tried over the last century and more. The most successful have been "over-running". They generally straddle a concrete beam. Think of the Disneyland and Seattle monorails. While these have proven reliable, switching tracks is cumbersome because the entire beam has to move, so they tend to be limited to simple point-to-point operations.

The South St. Paul line was the other kind, referred to as "suspended" or "under-running". The car hangs from a guideway. The only real example to survive today is the Wuppertal, Germany line, which opened in 1901.

Monorails have a basic flaw. There may be one rail, but it takes many wheels to keep the car from falling off it. An over-running line has wheels running on the top and both sides of the rail. Suspended monorails need wheels on both sides of the girder-like rail.

Monorails' other problem is that they must always run on some kind of bridge structure, which is much more expensive than simply laying a railroad track on the ground. The result? Monorails remain a novelty, rather than a competitive mode of transportation.

### **The Enos monorail**

In 1886, the Enos Electric Company built a demonstration monorail, which suspended the car from a light, open steel structure, on the grounds of the Daft Electric Light Company in Jersey City, New Jersey. During the 1880s a number of inventors were trying to harness electric motors to power

streetcars. Leo Daft was one of the more prominent ones, although his patents ultimately were not successful. Neither were those of Charles Van Depoele, who built the Motor Line electrification. The winner of the technology race was Frank Sprague in 1888, and his patents became the industry standard, including every line built in Minnesota starting in 1889.

On May 22, 1887, the South St. Paul Rapid Transit Company formed. Two St. Paul businessmen, Charles W. Clark and John Bryant, owned land on top of the bluff in South St. Paul but needed transit service to access it. The Great Western steam-powered suburban trains had started running in 1886 and served a station at the foot of Bryant Avenue, which climbed the bluff to their properties.

They learned of the Enos monorail and decided to employ the technology. They acquired an easement along Bryant Avenue and built a line up that street that was roughly 1/3 mile in length on a 6-7 percent grade. At 16th Avenue, it turned south for about a city block.

### **One bright shining moment**

The West St. Paul Times described the inaugural trip.

**May 12, 1888**

There was a large delegation of prominent men from St. Paul and Minneapolis. On arriving at South St. Paul the party was at once conducted to the electric railway station, which is about an eighth of a mile from the motor station.

The passenger car stood in the station suspended from the elevated track. It is about the size of an ordinary street car, handsomely upholstered in blue plush and encircled with bands of steel which increases both its strength and stability. The operator who stands at one end and controls the movement of the car gave a turn to a little wheel and a reversal to a rod and the car moved out of its station.

The motor made its first start about one o'clock p. m., took its load up an incline of six feet (per hundred), around curves at a

speed of fifteen miles per hour. It took us up the grade and down again.

The car contained 27 persons and the motion was without jerk or jar. The car was suspended about four feet from the ground, there was no swinging or side motion, although the car hung under the track.

The car traveled back and forth many times so that all present could personally experience the sensation of being transported by electricity. The car would obey the least movement of the wheel. It is claimed that a speed of forty can easily be maintained.

### **Grand ambitions**

The monorail builders had bigger plans. They wanted to extend the line one block south to Thompson Avenue, west to Robert Street and north to downtown St. Paul. That's not all. They proposed to continue to downtown Minneapolis. The route would follow University Avenue to 19th Street (one block north of Franklin Avenue) to Riverside Avenue, which becomes 4th Street in downtown. But first they had to convince the St. Paul and Minneapolis city councils to grant them franchises. They ran into concerns about the impact of an elevated railroad above a public street.

### **Minneapolis Tribune**

**May 28, 1888**

"Will you make an attempt to get an ordinance granting your company a franchise to build an elevated railroad?", was asked of the representative of the Enos Electric Railway Company yesterday. "Yes, I think we will introduce a resolution into the first session of the new council...I do not think that the people living along the streets where our line is supposed to run understand how it is to be erected. We have only one post on the street, and these are some distance apart, where other companies would have to have four: we need only two rails, without ties, where others use four rails and ties. We do not shut out a particle of light, and on streets where the steam line would run it would be sometimes like not having any sun in narrow streets, almost forming a bridge.

The bottom of the cars would be from 10 to 11 feet above the surface of the ground, allowing any vehicle to pass underneath. The streets along the line would rapidly change from resident to business streets, and the value of property along the line would be largely increased. We will make the distance (from Minneapolis to St. Paul) in about 11 minutes, including all stops, and will run a train every five minutes if the traffic warrants it. We would start the work of erection in St. Paul immediately, and finish to Minneapolis, and then make a connection with one line in South St. Paul.

In June 1888 the St. Paul City Council declined the company a franchise, but promised to revisit the issue in August.

On August 9 the Council reversed itself and granted the ordinance to "construct its lines in West St. Paul, and to bridge the Mississippi River to 2nd Street." The route is described as "from the intersection of South Robert Street with the city limits (Annapolis Street) to State Street, thence to Greenwood Avenue, thence to East Delos Street, to Starkey Street, to Cedar Street, there to bridge the Mississippi and cross to 2nd Street"

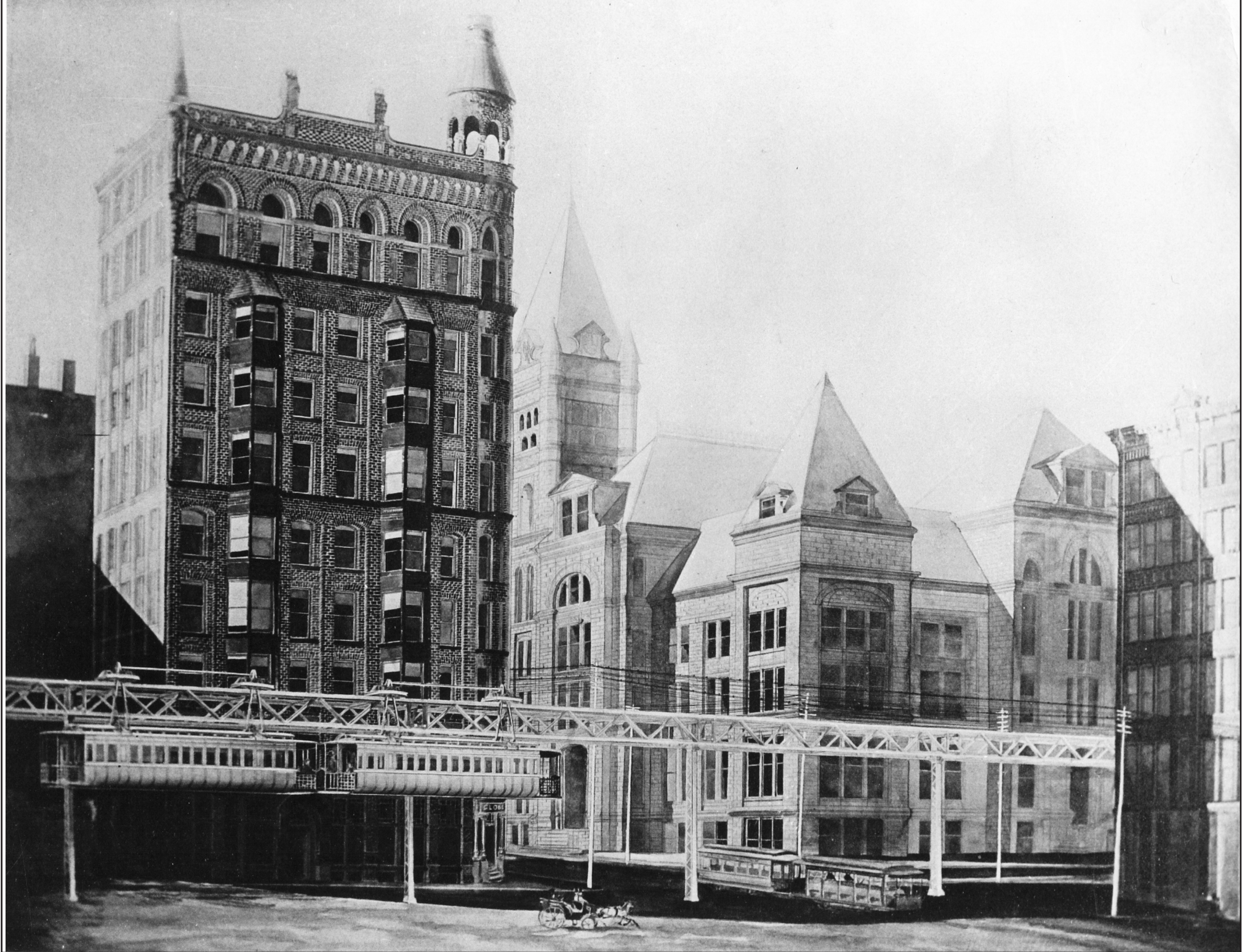
The Minneapolis City Council, however, was not interested and refused to consider a franchise. After that the company disappears from newspaper accounts and presumably that was the end of it.

According to the available accounts, the line never ran regular scheduled service. When it was torn down is unclear. It may have remained in place for up to five years. After the track was removed, the monorail car sat on display at Concord and Bryant, reportedly until as late as 1918. Apparently the scrappers only removed the track structure above the ground. During the 1960s and 70s, city crews working in the area unearthed the footings and some of these remnants reside at the Dakota County Historical Society. In 1967, a memorial to the monorail was placed in front of Clark Memorial Church on 15th and Bryant.

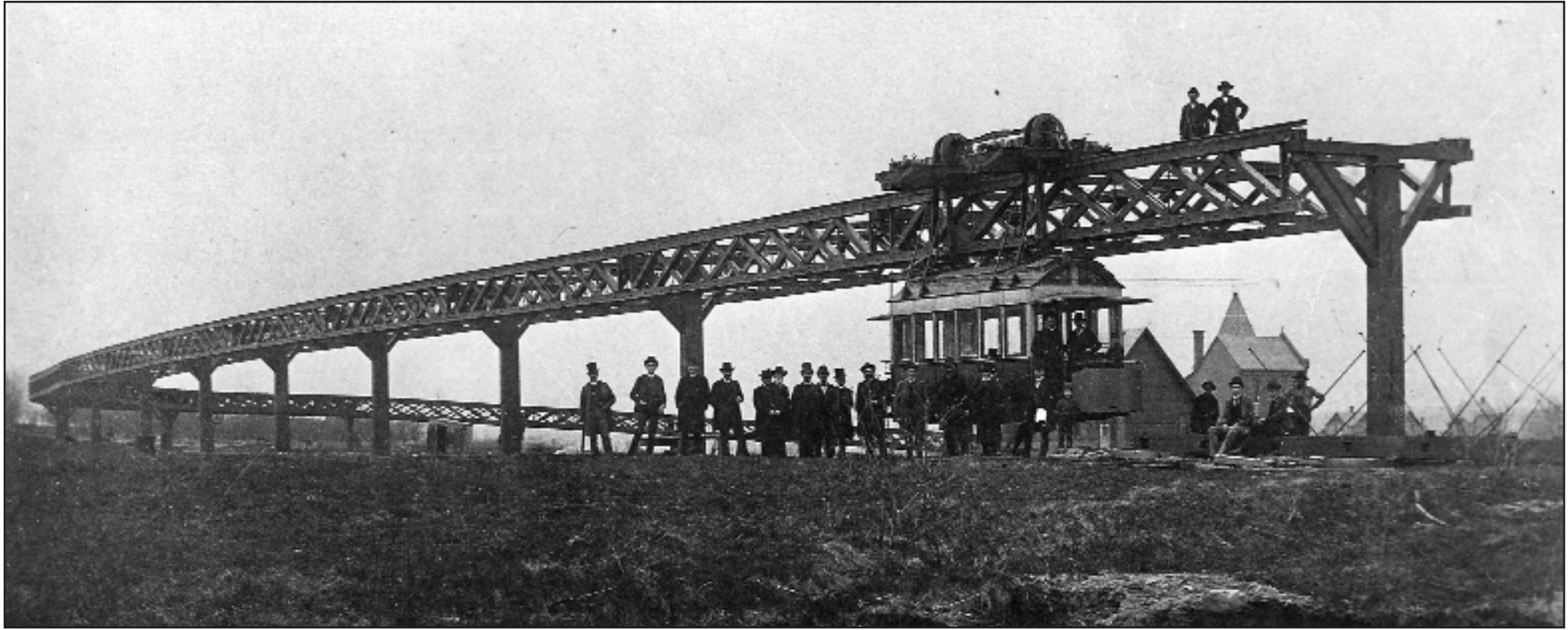












The front cover photo, as well as the photos on this page and the preceding pages, all appear to have been taken during the public unveiling on May 11, 1888. No other photos of the monorail have been found.

Above: This is the top end of the line, in the right of way of 16th Avenue. In the distance the line turns into Bryant Avenue and descends the hill.

Opposite page: As part of their campaign to win a city franchise, Enos Electric Company produced this artist's conception of the monorail in downtown St. Paul. It is in front of the Globe Building on Cedar Street, as a Selby Avenue cable car train on 4th Street passes beneath. That's the St. Paul City Hall beyond the cable cars. The new Central Corridor LRT turns off 4th Street at this point to pass diagonally through the old city hall block. All Minnesota Historical Society collection.

Right: The monorail monument in front of Clark Memorial Church, named for one of the monorail's builders.





## How to Run a PCC

This rather beat-up brochure instructed TCRT motormen how to start and operate a PCC car. The second panel lists troubleshooting tips. The print is worn off the top of the third panel, which contains instructions for towing a disabled PCC.

## INFORMATION CONCERNING OPERATION OF P.C.C. CARS BEGINNING WITH NUMBER 300

### PULLING OUT P.C.C. CAR

1. Turn on all switches on operator's dash panel.
2. Look car over.
  - a. Check sand on rail.
  - b. Check track brakes.
  - c. Check stop lights.
  - d. Check cabinet doors.
  - e. Try life guard.
  - f. Check headlight, door light, and clasp brake light.
3. Turn off all switches not needed.
4. Reset life guard.
5. Check sand in boxes.
6. Set destination signs.
7. Take reverse lever from operator's cabinet and place in position.
8. Reset clasp brakes if necessary.
9. Try out all pedals and make two or three trial stops.

### PULLING IN P.C.C. CAR

1. Set car in parking position.
2. Turn off all switches.
3. Place reverse lever in operator's cabinet.

### GENERAL INSTRUCTIONS

If track brakes are applied by releasing or pushing down on the "Dead Man" pedal the alarm sounds. When car is stopped the clasp brake is set and the Brake Reset light on the operator's dash panel shows red. To release the clasp brakes place the left foot on the "Dead Man" pedal, depress to operating position. Push forward on the Brake Reset switch on the dash panel for an instant and release. This should cut out the red light.

When backing car with rear control and the alarm should sound with the clasp brake red light on the operator's dash panel remaining on, take the reverse lever, go to the front, and place reverse lever in position. Then depress "Dead Man" pedal to operating position and push reset switch forward.

**IMPORTANT**  
**In Case of Any Trouble**  
**Call Station Promptly**

If motor generator set shuts off for any reason pull down trolley, then change motor generator fuse in center cabinet. If motor generator light stays on and alarm continues, remove car from service. Couple up to next car and follow Method No. 2 pull-in procedure.

Check voltmeter frequently. If voltmeter reads under 30 volts, pull down trolley and change generator fuse in center cabinet. If voltmeter reads over 40 volts call station.

When signal cord is too tight alarm will sound. To remedy this stretch cord toward buzzer.

If more than two lights are out in a circuit, the bulbs must be replaced to avoid trouble.

Do not operate car through more than three inches of water, and then wait three minutes after going through before proceeding.

Do not cut out battery switch or motor generator switch on a grade, or at any time the car is operating.

If operator gets locked out of car he should push up on window next to operator's seat to reach door switch.

Do not operate windshield wiper on a dry window as it will scratch the glass.

Take reverse lever with you whenever you leave car on the line.

### IF CAR BECOMES CRIPPLED

1. Check if motor generator switch is on.
2. Check if battery switch is on.
3. Check if power is on by turning on lights.
4. Step all pedals up and down two or three times.
5. Make sure reverse lever is in proper position.
6. Turn on "Emergency" door switch in cabinet over the center doors.
7. Interchange with good fuses all fuses in both cabinets which deal with the motor generator, the door controls, and all others involved. Refer to blue print on door of fuse cabinet. Caution: Do not open cabinet back of center doors until you have pulled trolley off the wire.
8. If none of these remedies work, have car pushed or pulled to the nearest wye or station. Refer to Pull-in Procedures.

**IMPORTANT**  
**In Case of Any Trouble**  
**Call Station Promptly**





used in most cases unless pull in is caused by brake failure where brakes cannot be released electrically.

1. Use long drawbar on P.C.C. Car.
2. Leave trolley pole on wire.
3. Cut out any pair of motors or all motors.
4. Place reverse lever in direction car is to be moved.
5. Cut out all switches except battery relay, motor generator set, headlight and marker switches, and car lights.
6. Reset clasp brakes if necessary.
7. Release brake pedal and leave in coast position, except when applying brakes.
8. Operator keeps his seat and keeps pressure applied on "Dead Man" pedal to hold it out of emergency.
9. Track brakes and clasp brakes are available.

#### Method No. 2

To be used when it is necessary to manually release clasp brakes.

1. Use long drawbar on P.C.C. Car.
2. Cut out any pair of motors or all motors.
3. Pull trolley down and latch on roof hook.
4. Cut out all switches on dash control.
5. Release electric clasp brakes by using Tee wrench located in front cabinet. Place wrench in recess in nut located at bottom of brake bell crank and turn to the left about 10 revolutions, or until brakes are loose.
6. Place reverse lever in direction car is to be moved.
7. Close doors by hand and proceed with car.
8. When car reaches the station, notify the Mechanical Department at once, as car cannot be parked until brakes are again tightened.

#### NOTE

Method No. 1 can be used in most cases as current consumed will not be enough to throw track switch, provided all switches are in "off" position, except those noted under No. 5. Track throwing switch can be used.

**IMPORTANT**  
In Case of Any Trouble  
Call Station Promptly

## TWIN CITY RAPID TRANSIT CO.

Minneapolis, Minn.



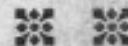
### INSTRUCTIONS

to

OPERATORS

of

P.C.C. CARS



June 15, 1948





We're looking at the end of the line at Linden Street, the South St. Paul/Inver Grove city line. The car is about to back into the wye at left. Beyond the streetcar, the abandoned former St. Paul Southern interurban heads for the side of the road. Bill Janssen photo.





# MINNESOTA STREETCAR MUSEUM

PO Box 16509  
Minneapolis, MN 55416-0509  
[www.TrolleyRide.org](http://www.TrolleyRide.org)

August 2021

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